



**6450-01-P**

## **DEPARTMENT OF ENERGY**

### **Western Area Power Administration**

#### **Estes to Flatiron Transmission Lines Rebuild Project Environmental Impact Statement (DOE/EIS-0483)**

**AGENCY:** Western Area Power Administration, DOE.

**ACTION:** Record of decision; floodplain statement of findings.

**SUMMARY:** The Western Area Power Administration (WAPA) issued the Final Environmental Impact Statement (EIS) (DOE/EIS-0483) for the Estes to Flatiron Transmission Lines Rebuild Project (Project) on April 13, 2018. The Agency Preferred Alternative developed by WAPA through the National Environmental Policy Act (NEPA) process and described in the Final EIS is summarized in this Record of Decision (ROD). This alternative is also the Environmentally Preferred Alternative for the Project. All practicable means to avoid or minimize environmental harm have been adopted.

WAPA has selected the Agency Preferred Alternative identified in the Final EIS for implementation.

**ADDRESSES:** The Final EIS, this ROD, and other Project documents are available on the Project Web site at

*<https://www.wapa.gov/transmission/EnvironmentalReviewNEPA/Pages/estes-flatiron.aspx>.*

**FOR FURTHER INFORMATION CONTACT:** For information on WAPA's participation in the Project contact Brian Little, Environmental Manager J0400, Rocky Mountain Regional Office, Western Area Power Administration, P.O. Box 3700, Loveland, CO 80539-3003, telephone (970) 461-7287, facsimile (720) 962-7083, email [blittle@wapa.gov](mailto:blittle@wapa.gov). For information

about the Project EIS process, contact Mark J. Wieringa, NEPA Document Manager, Natural Resources Office A9402, Headquarters Office, Western Area Power Administration, P.O. Box 281213, Lakewood, CO 80228-8213, telephone (720) 962-7448, facsimile (720) 962-7263, email [wieringa@wapa.gov](mailto:wieringa@wapa.gov).

**SUPPLEMENTARY INFORMATION:** WAPA, a Power Marketing Administration within the U.S. Department of Energy (DOE), is proposing to rebuild and upgrade two 115-kilovolt (kV) single-circuit transmission lines between Flatiron Substation west of Flatiron Reservoir and the intersection of Mall Road and U.S. Highway 36 on the east side of Lake Estes in Estes Park, all within Larimer County, Colorado. The Project area is situated east of the community of Estes Park and west of the Town of Loveland. Major transportation corridors are U.S. Highways 36 and 34, which provide access between Front Range communities to the east and Rocky Mountain National Park to the west of the Project area. The Project area includes private lands in Larimer County, and public lands administered by the U.S. Department of the Interior (DOI), Bureau of Reclamation; U.S. Department of Agriculture, Forest Service (Forest Service); the Colorado State Land Board; Northern Colorado Water Conservancy District; and Larimer County. The Forest Service, through the Canyon Lakes District of the Roosevelt National Forest, was a cooperating agency in the preparation of the EIS, and that agency will issue its own ROD addressing the Federal actions within its jurisdiction and authority.

WAPA owns, operates, and maintains two single-circuit 115-kV transmission lines between the Flatiron Substation and Estes Park Substation. Prior to the formation of the DOE, the DOI's Bureau of Reclamation constructed and maintained the two existing transmission lines as part of the Colorado- Big Thompson Project. The lines were constructed to transmit electricity from hydropower generation sources of the Colorado-Big Thompson Project. After the formation of

the DOE and WAPA in 1977, ownership, operation, and maintenance of the transmission lines was transferred from the Bureau of Reclamation to WAPA.

The Estes- Lyons Tap is the more northern of the two lines and is also referred to as the North Line. The South Line consists of the Estes-Pole Hill and Flatiron-Pole Hill line segments that connect the Pole Hill Substation to the Estes Park and Flatiron substations, respectively. Both existing transmission lines are 115-kV single-circuit lines constructed on wood pole H-frame structures. The North Line is 14.1 miles long and was constructed in 1938, while the South Line is 14.5 miles in length and was constructed in 1953. WAPA's Project only encompasses the single-circuit wood-pole transmission lines to the intersection of Mall Road and U.S. Highway 36, where both lines intersect at a lattice steel structure; the Project does not include the double-circuit steel lattice structures that start at that point, parallel the U.S. Highway 36 causeway across Lake Estes, and terminate at the Estes Park Substation.

### **Project Description**

WAPA proposes to remove both wood pole lines and replace them with a new line or lines, for the following reasons. The existing wood structures are in poor condition and continue to deteriorate due to both age and the type of material with which they were constructed. Many of the existing wood poles on both lines suffer from core rot and cracking, and have reached or are reaching the end of their anticipated facility life. The majority of wood structures will need replacing in the near future to meet the strength and safety requirements found in National Electric Safety Code standards.

At one time there was access to the existing transmission line structures for construction and maintenance. However, in the 60 to 75 years since the transmission lines were built, access has deteriorated at many locations. Portions of the existing lines are marginally accessible for

routine maintenance and structure replacement. Inaccessible areas include sections of the existing transmission lines that span canyons, are located on steep cliffs or rocky slopes, or cross the Pole Hill penstock (the water pipelines between Pinewood and Flatiron reservoirs).

Portions of the existing transmission lines run parallel to each other in relatively close proximity. Each line has a separate right-of-way (ROW). The North Line has a ROW width of only 20 to 30 feet at most locations, which is inadequate to meet reliability and safety standards. The South Line has ROW widths that range from 75 feet to 130 feet for most of its length. WAPA would need to increase the South Line ROW easement width to 110 feet in locations where it is less. The Project area is susceptible to mountain pine beetle infestation and currently has many infested trees that create heavy fuel loads for wildfires. Where ROWs have insufficient width and heavy fuel loading, there is a greater risk of a large wildfire event. This level of risk does not meet applicable standards or WAPA's commitment to its customers to provide reliable and safe power.

In many cases, ROW maintenance has been limited to removal of hazard trees. This practice typically does not address the encroaching vegetation until it becomes a threat that requires immediate attention to ensure no adverse effect to the transmission line or to prevent a fire caused by a transmission line. This reactive approach to hazardous vegetation maintenance is not conducive to ensuring the level of operating reliability that is required by today's North American Electric Reliability Corporation standards, nor is it efficient or cost effective. Today's stricter maintenance standards require a more proactive approach to vegetation management, with the goals of ensuring that there will be no tree-caused transmission line outages and minimizing the risk for wildfires.

## **Alternatives**

Four full-length alternatives and three variants form seven action alternatives to rebuild and upgrade the existing 115-kV transmission lines. These seven alternatives were analyzed in addition to the No Action Alternative. All alternatives, including the No Action Alternative, would require improved access, including new access roads, and widening the ROW to 110 feet where it is presently less. North Line alternatives would all require the removal and reroute of a short section of line through a subdivision near Pinewood Reservoir, where encroachments on the inadequate ROW do not allow for rebuilding a transmission line. The EIS also disclosed that portions of the alternatives could be combined during the decision-making process. The alternatives are briefly described below:

The No Action Alternative would not rebuild the old lines, but structures and other line components would be replaced by maintenance forces over time. Alternative D would entirely rebuild both lines with new structures and conductors similar to the existing ones; essentially it is a replacement in kind alternative. The existing wood pole H-frame structures are 65 to 75 feet tall; Alternative D would use wood pole structures 5 to 10 feet taller.

Alternative A would rebuild and consolidate the transmission lines primarily on the existing North Line ROW. Structures would be galvanized steel, single pole, double-circuit structures approximately 40 feet taller than the existing structures, and would be the same for all other alternatives using steel structures. If structure-for-structure replacement is used in visually sensitive areas, those steel monopole structures would be about 85 feet tall, and closer together. Alternative A includes a reroute to the north and northeast of Newell Lake View subdivision and along Mall Road in Estes Park. Variant A1 is identical to Alternative A for all but the westernmost segment. At a point in the valley between Mount Olympus and Mount Pisgah, this

routing variation would depart from the alignment of the existing North Line and traverse along the base of Mount Pisgah before turning to the northwest and generally following an alignment parallel to U.S. Highway 36 for the remaining distance to the existing steel lattice double-circuit structure at the intersection of U.S. Highway 36 and Mall Road. Variant A2 follows an alignment similar to Variant A1 except the westernmost 2.7 miles of the transmission line would be constructed underground.

Alternative B would rebuild and consolidate the transmission lines, primarily on the existing South Line ROW. This alternative includes a 0.25-mile reroute along Pole Hill Road on National Forest System lands, and a 0.75-mile reroute to the North Line on new ROW in the vicinity of Pole Hill Substation.

Alternative C would rebuild and consolidate the transmission lines along an alignment utilizing a combination of the existing North and South line ROWs. This alternative includes reroutes off the existing transmission line ROW east of Pinewood Reservoir, along Pole Hill Road on National Forest System lands, and on privately held land on the west end of the Project area. Variant C1 would similarly rebuild and consolidate the transmission lines along an alignment similar to Alternative C, except that the westernmost 2.7 miles of the transmission line would be constructed underground.

Alternatives A, A1, A2, B, C, and C1 would all result in the abandonment of one ROW, and consolidation on the other, although the alternatives vary in what sections of the two ROWs would be abandoned.

## **Agency Preferred Alternative**

WAPA, with input from the Forest Service (Canyon Lakes District of the Roosevelt National Forest), has selected the Agency Preferred Alternative identified in the Final EIS for implementation. The Agency Preferred Alternative would be a new galvanized steel, single-pole, double-circuit line between Flatiron Substation and U.S. Highway 36 at the intersection of Mall Road using the Alternative C alignment in the west and primarily the Alternative C alignment in the center, and the Alternative B alignment in the east. In the west region, the Agency Preferred Alternative would follow the Alternative C alignment along Pole Hill Road through the Meadowdale Hills subdivision to U.S. Highway 36. In adapting part of Alternative C for the Agency Preferred Alternative, the four-wheel drive segment of West Pole Hill Road would not be reconstructed or improved on National Forest System land, retaining the challenge for four-wheel drive use in response to Draft EIS public comments. New access would be needed in the west region for construction and maintenance. The previous access road has been closed as a result of flood damage. In addition, instead of crossing over U.S. Highway 36, the Agency Preferred Alternative would follow the Alternative C alignment for 1.7 miles, generally parallel to and north of U.S. Highway 36 down the valley for the remaining distance to the intersection of Mall Road and U.S. Highway 36.

New ROW would be required for the last segment on the west end of Alternative C to reduce visibility from U.S. Highway 36. Special design measures will be considered for this segment within the Meadowdale Hills subdivision, including the use of structures with a lower height and shorter span, if they provide a lower visual impact. This option could result in a structure-for-structure replacement instead of eliminating some structures entirely. After design options have been developed with specific structure locations, they will be shared with the affected parties.

In the central region on private lands, the Agency Preferred Alternative primarily would follow the North Line, but may shift to the South Line and back again to stay closer to Pole Hill Road, thus minimizing the need for access roads and ROW maintenance disturbance. Additional ROW would need to be obtained along the North Line to meet the 110-foot requirement.

In the east region, from the Flatiron Substation the Agency Preferred Alternative would follow the Alternative B alignment along the existing South Line to the Pole Hill Substation. Just east of the Pole Hill Substation the Agency Preferred Alternative would continue to follow the alignment of Alternative B which would turn north and partially parallel Lone Elk Road for 0.75 mile until intersecting the alignment of the existing North Line. A new ROW along existing roads would be required for this short segment, as well as new access spur roads to new structures. Shifting to the North Line alignment at this point would avoid crossing the Pole Hill Penstock and the steep and rocky terrain west of the Pole Hill Substation.

At locations where the Agency Preferred Alternative alignment would follow the existing transmission line routes, the existing structures would be replaced with new double-circuit galvanized steel monopole structures. Individual structure locations could vary depending on final design. Increasing the number of transmission line structures near National Forest System roads could change the visual nature and impact of human development for recreational users of the roads. WAPA would not increase the number of structures along National Forest System roads, and depending on final design there may be fewer structures in these locations.

On abandoned ROW, existing structures and conductors would be removed, vegetation management would cease, and the ROW allowed to return to natural vegetation patterns. The Agency Preferred Alternative would avoid the fen wetlands identified in the Project area.



## **Environmentally Preferred Alternative**

The Agency Preferred Alternative is also overall the Environmentally Preferred Alternative for the Project. Using the tabular impact data developed for the Final EIS, Alternative B comes out very slightly environmentally preferred compared to the Agency Preferred Alternative. The few sections of the Agency Preferred Alternative where new ROW would be required would result in new environmental resource disturbance in those sections; the effects of this new disturbance are captured in the impact tables. However, these new sections were developed to reduce specific recognized important impacts, both existing and associated with the Project. The net effect on environmental resources of these departures from the existing ROW would be positive, and outweigh the slight calculated advantage of Alternative B. The Agency Preferred Alternative would also result in the abandonment of approximately half the existing linear ROW, allowing for natural regeneration and the removal of easement encumbrances on private and public landowners.

## **Floodplain Statement of Findings**

Notification of potential floodplain action was included in the Notice of Intent for this Project (77 FR 22774 (Apr. 17, 2012)). Potential impacts to floodplains were analyzed as an integral part of the NEPA process. The Project is located in a mountainous area, and most surface water features are ephemeral or intermittent drainage channels that run during rainstorms and snow melt. These channels are typically very narrow and are spanned by transmission lines, as structures are typically sited on higher ground to increase span lengths. The Project makes use of existing transmission ROWs, and access is a combination of public, private, and National Forest System roads, and spurs to reach structure locations. Approximately 30 culverts are associated with existing access. The North Fork of the Little Thompson River is the only

perennial stream crossed by the Project, and it would be spanned by the transmission line and crossed using existing road crossings. The Agency Preferred Alternative avoids the Big Thompson River Special Flood Hazard Area.

An existing access road across a small fen on the National Forest has been closed and would no longer be used. The Agency Preferred Alternative would avoid the ephemeral wet meadow crossed by the west end of the existing North Line on the west end. The existing transmission line structures would be removed, access would no longer be required, and the ROW abandoned. A few additional structures currently located in seasonal wetlands would be relocated outside of the wetlands, and the existing structures removed during dry periods or when the ground is frozen. WAPA also has standard construction practices and environmental protection measures to protect floodplains, wetlands, and riparian areas, and these are specifically committed to in table 2.5-1 and section 2.5 of the Final EIS and by issuance of this ROD. Given the lack of new impacts from the Project, the removal of existing infrastructure and access presently located in floodplains and wetlands, and the abandonment of one entire ROW, the construction of the Project would result in a net improvement to these resources as compared to current conditions.

### **Section 7 and Section 106 Consultation**

WAPA consulted with the Fish and Wildlife Service under Section 7 of the Endangered Species Act. This consultation resulted in a November 9, 2017, letter from the Fish and Wildlife Service concurring with a determination of “not likely to adversely affect” listed species that could occur in the Project area.

WAPA consulted with the Colorado State Historic Preservation Office (SHPO) and the Cheyenne and Arapaho tribes of Oklahoma, Northern Arapaho Tribe, Northern Cheyenne Tribe, Oglala Sioux Tribe, Shoshone Tribe of the Wind River Reservation, Southern Ute Indian Tribe,

Ute Indian Tribe of the Uintah and Ouray Reservation, and the Ute Mountain Tribe. The opportunity to consult was also extended to the Estes Park Museum.

The SHPO has concurred with WAPA's findings of No Adverse Effect on historic properties within the area of direct effects, No Historic Properties Affected for indirect visual effects, and an overall Project finding of No Adverse Effects for the Agency Preferred Alternative. The Southern Ute Indian Tribe was the only tribe or entity that responded, asking for further information. WAPA extended the review period to accommodate that request. WAPA remains open to Native American comment should any be made.

### **WAPA's Decision**

Informed by the analyses and environmental impacts documented in the Final EIS and related consultations, WAPA has selected the Agency Preferred Alternative identified in the Final EIS and summarized above as its decision for the Project. The Agency Preferred Alternative route will be the basis for design and engineering activities that will finalize the centerline, ROW, and specific structure and access road locations. Additionally, this ROD commits WAPA to implement the standard construction practices listed in table 2.5-1, the Project-specific design criteria and construction practices in section 2.5.2, and the vegetation management practices described in appendix B of the Final EIS to minimize environmental impacts. All practicable means to avoid or minimize environmental harm have been adopted, and the Project will result in a net environmental benefit.

This ROD was prepared in accordance with the requirements of the Council on Environmental Quality regulations for implementing NEPA (40 CFR parts 1500-1508) and U.S. Department of Energy NEPA regulations (10 CFR part 1021).

Dated: March 13, 2019.

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